

Application No.: 10/625353

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8. (Original) A direct-coated material as claimed in claim 7 in which the back-up pad is adapted for use on a motor driven sanding machine.
9. (Original) A direct-coated sponge abrasive material as claimed in claim 7 in which the back-up pad is in the form of a block for hand sanding.
10. (Original) A direct-coated sponge abrasive material as claimed in claim 1 in which the loop material comprises brushed nylon.

REMARKS

Claim 1 has been amended to indicate that the abrasive layer comprises a coating on the surface of the direct-coated sponge material as follows:

1. (Currently Amended) A direct-coated sponge abrasive material directly bearing a releasable securing means comprising one part of a two part hook material and loop material attachment system[.]. wherein the abrasive layer comprises a coating on the surface of the sponge material together with binders which include abrasive material.

Basis for this amendment may be found on page 1, lines 17-21, and page 3, lines 23-27 and in Figure 1 of the drawing.

Claims 1, 3, 4, and 5 are said to be "finally" rejected under 35USC§102(e) as being anticipated by German 9407622. Section 26 indicates that this is a "non-final" rejection. It is assumed that Section 26 is correct and that item 2 on page 2 incorrectly indicates that the rejection is final.

The rejection indicates that the German reference discloses a direct coated sponge abrasive material bearing a securing hook means.

For a reference to disclose a claimed invention, it must disclose each and every element of the claim. Claim 1 now reads as follows:

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1. A direct-coated sponge abrasive material directly bearing a releasable securing means comprising one part of a two part hook material and loop material attachment system wherein the abrasive layer comprises a coating on the surface of the sponge material together with binders which include abrasive material.

The specification on page 3, lines 23-27, defines this term as follows:

The term "direct-coated sponge abrasive material" is intended to include materials in which abrasive material is coated on the surface of a resilient, cellular sponge material together with relevant binders and to exclude sponge materials that are impregnated throughout with abrasive particles. That is, a direct coated abrasive sponge has only a surface coating of abrasive material.

The rejection of claims 1, 3, 4 and 5 under 35 U.S.C. § 102(e) as being anticipated by Jöst is unwarranted and it should be withdrawn.

Applicant's invention provides a direct-coated sponge abrasive material directly bearing a releasable securing means comprising one part of a hook and loop attachment system. Significant to the claimed invention is the fact that the sponge abrasive material is a "direct-coated" sponge abrasive material. "Direct-coated" sponge abrasive materials are defined as those materials in which abrasive material is coated on the surface of the resilient, cellular (sponge) material, such as foamed plastic, together with relevant adhesives and binders (see page 1, lines 9-13). Such direct-coated sponge materials are defined to exclude abrasive products which are prepared by embedding abrasive particles into the body of the sponge substrate because the abrasive material must be directly bonded to the sponge surface as noted above. Claim 1 has now been amended to exclude abrasive products of the type defined by Jöst.

By contrast, Jöst discloses a sponge material in which abrasive particles are embedded into a sponge material; see Fig. 2. Jöst indicates that "the abrasives are embedded and form the abrasive layer by protruding from the adhesive bed and [in that] the abrasive carrier together with the abrasive layer" (see Translation, page 3, lines 11-13). In fact, Jöst refers to his sponge layer

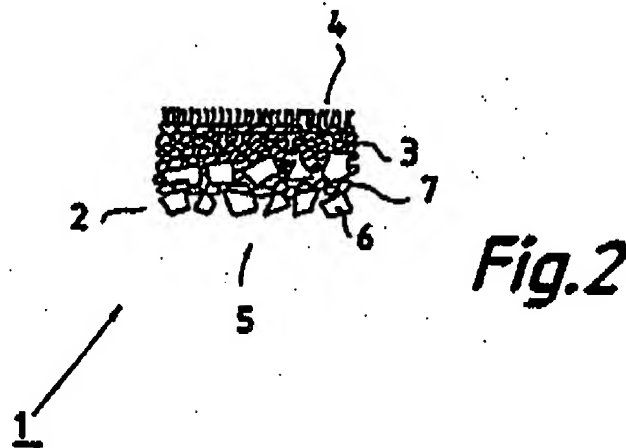
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as a "sponge-like abrasive carrier" rather than a substrate on which an abrasive layer is coated (see Translation, page 3, line 9). Further, Jöst indicates that the binder which holds the abrasive particles within the sponge layer "at least in part consists of the foam" (see Translation, page 5, line 1).

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Figure 2 of Jöst is reproduced below.



As described on pages 4 and 5 of the Jöst translation:

As is clearly recognizable from Figure 2, the abrasive grains 6 are bonded to one another by means of a binder 7 which at least in part consists of the foam. The abrasive article (1) according to the invention is equally well suited for wet and dry sanding. For a suitably porous foam, the collection by suction of the abrasion dust can be well performed with the corresponding abrasive machines.

With the understanding that the result of the abrasion is dependent, among other things, on the type and shape of the abrasive (2) and of the abrasive article (1), the design according to the invention leads to the fact that based on the flexibility of the abrasive carrier or of the foam (3), for a large contact pressure the abrasive grain (6) recedes into the foam bed of the abrasive carrier instead of [leading] to a too strong abrading. Again, this behavior may be exploited in the use of a plurality of new grain types. For example, if a certain material requires a certain type of grain with regard to shape, size, hardness or friability, but used with an inappropriate contact pressure these essentially necessary specific values would lead to a destruction of the surface of the work piece, the design according to the invention substantially excludes this danger in that the chosen grain (6) gets pressed into the foam bed of the abrasive carrier (3) instead of scraping the surface of the

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work piece. If the abrasive layer is changed due to loss of abrasive grains (6), then this is eliminated by the contact pressure, since the abrasive grain within the foam bed lying underneath [the gap] shifts into the gap and a surface of the abrasive (2) is formed corresponding to the original granulation. Such a continuous homogeneous grain spacing substantially improves the abrasion result. As opposed to traditional abrasive articles, which usually have a uniform grain structure only before use, and at this point it must be critically evaluated whether these may already be designated as rejects, the service life increases substantially for the abrasive article (1) according to the invention, since, as already stated, the abrasive grains (6) replace one another or else an abrasive grain (6) lost out of the foam bed does not lead to an increase in the grain distance, since the contact pressure distributes over the entire abrasive surface of the abrasive article (1) and, based on the elastic behavior of the abrasive carrier (3) or the foam, the layers behind of grains are pushed forward and the outer layers of grains are pushed backwards, which leads to the homogeneous and approximately planar abrasive layer (5).

Thus, Jöst's sponge is not a direct-coated sponge abrasive material as defined in applicant's application. In fact, it would be contrary to Jöst's invention to use abrasive particles in a layer according to Applicant's claims since Jöst's foam takes an active part with the abrasive particles in the abrading process. Thus, Jöst's product would perform differently than the product of the invention. Thus, Jöst's disclosure could not anticipate claims 1, 3, 4 and 5 under 35 U.S.C. § 102(e). Furthermore, Applicant's claim 5 defines a product having a sponge with a rectangular shape. Jöst fails to disclose such a product. In order for the claims to be anticipated by Jöst, the Jöst disclosure must teach each and every element in the claim. Jöst fails to do this. The rejection of these claims, based on the disclosure of Jöst, is, thus, inappropriate and it is requested that the rejection be withdrawn.

Claims 2, 6 and 13 [(sic)] (although there is no claim 13, it is presumed that the Examiner intended to indicate claim 7) stand rejected under 35USC§103(a) as being unpatentable over German in view of Hong. Since the German reference is excluded by the present amendment of claim 1 and the definition in the specification, the combination of this reference with Hong is unwarranted.

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Jöst adds the Velcro-type fastener to reinforce the rather weak sponge material rather than to provide a convenient way of holding a segment of the article by hand (see Translation, page 4, lines 18-28; also see page 3, lines 10-11). Jöst requires that the abrasive be embedded in and protrude from the foam to add additional reinforcement to the foam or sponge element (see Translation, page 4, 25-28). Jöst looks for the two-fold benefit of reinforcing the relatively weak foam or sponge and the ability to mount the product on a tool for use. No mention is made of utilizing the Velcro-type element for providing a handhold to the product. In fact, there is absolutely no mention in Jöst of modifying his product to make it suitable for holding by hand.

Hong, et al. disclose a conformable hand sanding pad which comprises a conformable self-supporting pad having one major surface capable of providing temporary adhesive attachment for a sheet of pressure-sensitive adhesive-coated material and a handle means for maintaining the pad in contact with the hand of the user during use (Abstract). Hong, et al. fail to disclose and, in fact, teach against applying a direct coat of abrasive on a sponge material.

Figure 2 of Hong, et al., is reproduced below.

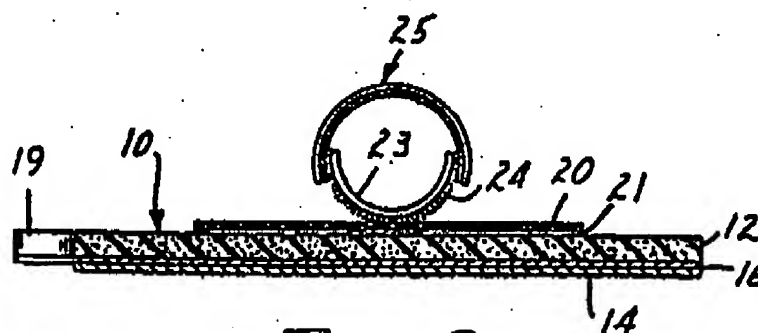


FIG. 2

This is clearly supported by the drawings, particularly Fig. 2 and the description thereof, particularly at column 3, lines 13-18, which referred to a "self-supporting pad (12) having one major surface (13) [see also Fig. 3 which shows the location of surface 13] capable of providing temporary adhesive attachment for a sheet (14) of pressure-sensitive adhesive-coated abrasive

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material . . ." Furthermore, there is a considerable discussion in Hong, et al. at column 4, lines 21-39 as to how the surface of the pad can be modified to prevent permanent adhesion of a pressure-sensitive adhesive-coated sheet material to provide temporary attachment.

It is submitted that the office action inappropriately combines Jöst and Hong, et al. since it appears contrary to the teaching of each of these references to make the combination. Jöst reinforces his weakened foam or sponge-like sheet material with one part of a Velcro fastening device to make it machine attachable without mentioning any further alterations to make it capable of being held in the hand. By contrast, Hong, et al. clearly wants his sanding pad to be a handheld product, not the machine mountable product of the type disclosed by Jöst. It is submitted that the Examiner is making this combination merely by use of hindsight reasoning because neither of the references suggest making the combination which the Examiner has made. In fact, the combination would be contrary to and defeat the purpose of each of the patents in question.

In making the rejection of claims 2, 6 and 13 under 35 U.S.C. 103(a), the office action relied on two cited decisions, *In re Einstein* and *In re Leshin*, to support its appropriateness. Such reliance, however, was misplaced, as will be explained. Each of the cases cited in the office action, in fact, would tend to support the patentability of the invention rather than support the position of the office action.

In the present case, the office action relies upon prior art which is not directed to similar articles, but to articles made for clearly different purposes. The invention of the German reference relates to an abrasive sponge made by embedding abrasive particles into the body of the sponge while Hong, et al.'s invention relates to non-abrasive pads to which pressure-sensitive adhesive coated-abrasive sheets may be temporarily adhered. To combine art related to these vastly different products was only done by inappropriate use of hindsight reasoning. The office action utilizes the claims of the present application as a road map to collecting bits and pieces of the prior art to conclude obviousness. This is a clear manifestation of hindsight reasoning and, thus, inappropriate.

In re Einstein, 8 USPQ 167 (1931) involves a patent application wherein the Examiner rejected certain claims on the ground that there is no patentable novelty in broadly interchanging parts, as disclosed in a reference to Gordon. The applicant claimed a new and improved grinder

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wheel oscillator which included a mechanism for imparting a slight to and fro shifting of the grinding wheel in an axial direction while the wheel is continually rotating. Certain claims were rejected on a combination of patents to Linton and Gordon as showing a spindle and grinding wheel which is caused to move forward and backward axially by "cogwheels." The decision acknowledged that the applicant's mechanism was different in that Gordon showed a spindle operated by pulleys and belts and which had a cam follower and cam groove which operate in a like manner to those of the appellant, namely, to move the spindle backward and forward. The Patent Office held that a transposition of these elements is obvious and does not constitute an invention.

Of significance in *Einstein* is the fact that the elements disclosed in the prior art were to obtain the same result as that obtained by the claimed invention, although the elements were mechanically different. By contrast, the combination claimed in the present application is different from each of the articles disclosed respectively in the German reference and the Hong, et al. reference.

In re *Leshin* relates to a rejection of a patent claiming a liquid-tight and air-tight container-dispenser for cosmetics in solid stick form based upon certain references which disclose articles for achieving similar results. These references included a patent to Root which disclosed a similar arrangement and a patent to Mahruki which disclosed a similar structure with somewhat different elements. The Court recognized the patentability of the structure defined in applicant's claim 18 because it was not suggested in the prior art to Gahide (applied by the board in a new ground of rejection) or Root because "there is nothing in either patent to suggest making such a combination," supra, page 418, and went on to say that "on the contrary, to use an aperatured or skeletonized follower in place of Root's cup would defeat his purpose in causing his soft felt washer under the cup to become soaked with hot liquid lip-stick," supra, the text bridging pages 418 and 419.

As in the present case, there is nothing in either patent to suggest making the combination made in the present office action. The combination would defeat the purpose desired by the German reference, since the German reference clearly wants to embed abrasive particles into the body of the sponge rather than direct coat the abrasive particles on the surface of the sponge, and would not want a hand held product. Thus, the German reference and Hong, et al. were

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inappropriately combined. In any event, the combination fails to teach Applicant's claims 2, 6 and 13 [7] because Jöst fails to teach and would not want a "direct coated" sponge or a hand held product. Furthermore, Applicant's claim 6 requires only a single strip of hook and loop material to secure to that part of the hook and loop material directly secured to the sponge, as depicted in Appellant's Fig. 2, to provide the hand hold arrangement. Such an arrangement is not disclosed in Hong, et al. As shown in Hong, et al's Fig. 2, a three-segment hook and loop arrangement is provided to provide a structure to receive the user's fingers, see the paragraph bridging column 4-5. The rejection based on the combination of Jöst and Hong, et al. is unwarranted and it should, thus, be withdrawn.

Claims 2-10 are rejected under 35USC§103(a) as being unpatentable over the German reference in view of Hong as applied to claims 2 and 6 and in further view of Cheney.

The rejection of claims 7-10 under 35 U.S.C. § 103(a) as being unpatentable over Jöst in view of Hong, et al., as applied to claims 2, 6 and 13[7], above, in further view of Cheney is unwarranted and it should be withdrawn.

It is inappropriate to combine Jöst and Hong, et al., as discussed above. The addition of Cheney, et al. to this combination is likewise inappropriate because the disclosure of Cheney, et al. fails to cure the inappropriateness of combining Jöst and Hong, et al. Cheney, et al., instead of direct coating, provide their sanding block by adhering coated abrasive sheet material to a compressible block. Cheney, et al., in column 7, lines 41-48, state as follows:

A sheet of abrasive material 50, is adhesively secured to the lower face 44 of the foam block 42. Sheet 50, entirely covers block major face 44, as well as the four (4) side edges 47, of the block 42. Thus, the sheet 50 is bent along straight lines at the block 42 corners, to conform to the block surfaces at 44 and 47. Sheet 50, can be a conventional sheet of sandpaper, or other suitable abrasive materials.

The combination of Jöst, Hong, et al. and Cheney, et al., is only made by use of hindsight reasoning to select from each of these references the relevant parts which are put together in

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making the rejection for no purpose that may be apparent from the individual references. This is a clear case of hindsight reasoning and, thus, inappropriate. In any event, since Jöst fails to teach a "direct coated" sponge, the combination fails to teach the invention claimed in claims 7-10. The rejection should, therefore, be withdrawn.

Claim 7 defines an article including the direct-coated sponge abrasive material of claim 1 in combination with a back-up pad comprising the other part of a hook and loop attachment system. Claim 8 further defines claim 7 to indicate that the back-up pad is adapted for use on a motor driven sanding machine. Claim 9 further defines the article of claim 7 to indicate that the back-up pad is in the form of a block for hand sanding.

While Cheney, et al. may disclose the use of a flexible attachment of a hook and loop type material for ready attachment to a hand or power sander, the combination of Jöst and Hong, et al. fails to teach the base claim from which claims 7-9 depend. Thus, no combination of Jöst, Hong, et al. and/or Cheney, et al. suggests claims 7-10.

The Board of Appeals decision, in the parent application, Serial No. 08/540,674 (paper No. 31) on pages 5-6 indicates that "one must interpret the recitation of the direct-coated sponge abrasive material in claim 1 in light of the definition in the specification as requiring a sponge material coated on its surface with abrasive material together with the relevant adhesives and binders. There is nothing in this definition, however, which excludes abrasive particles which are embedded into the sponge material as taught by Jöst."

It is submitted that the definition now provided specifically excludes abrasive particles that are embedded in the carrier. Claim 1 has also been amended to exclude products defined by Jöst.

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In view of the above, it is submitted that the application is in condition for allowance.
Reconsideration of the application is requested.

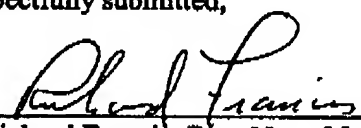
Allowance of claims 1-10, as amended, at an early date is solicited.

Respectfully submitted,

Date

8/2/05

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